

09/883,981
BU-9-98-225DIV

E3
cont. ~~29.~~ a trench region comprising a plurality of trenches, each of said trenches comprising a single layer of non-nitrided seamless high density plasma (HDP) oxide having an unpolished upper surface; and

~~30.~~ a non-trench region having an upper surface which is substantially co-planar with said unpolished upper surface of said single layer of said non-nitrided seamless HDP oxide, wherein said upper surface of said non-trench region comprises implanted dopants.

E4 SUB G1 29. (Twice Amended) The semiconductor substrate according to claim 8, wherein said upper surface of said single layer of non-nitrided seamless filler material and said upper surface of said non-trench region are planarized without reactive ion etching.

SUB F6 31. (Amended) The semiconductor substrate according to claim 8, wherein said upper surface of said single layer of non-nitrided seamless filler material and said upper surface of said non-trench region are planarized without chemical mechanical polishing.

ES 32. (Amended) The semiconductor substrate according to claim 8, wherein said upper surface of said single layer of non-nitrided seamless filler material is substantially scratch-free.

SUB G1 33. (Amended) The semiconductor substrate according to claim 8, wherein said upper surface of said non-trench region comprises implanted dopants.

34. (Amended) The semiconductor substrate according to claim 8, further comprising: a thin oxide layer grown on said upper surface of said non-trench region.

SUB F7 35. (Amended) The semiconductor substrate according to claim 8, wherein said upper surface of said single layer of seamless filler material is free of chatter marks.

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Please add the following new claims:

SUB
G17

-- 36. The semiconductor substrate according to claim 23, wherein said at least one trench comprises at least one wide trench and at least one narrow trench.

E6

37. The semiconductor substrate according to claim 23, wherein said implanted dopants comprise at least one of phosphorus, boron and fluorine.

38. The semiconductor substrate according to claim 23, wherein said high density plasma (HDP) oxide comprises non-conformal HDP oxide. - -
